IN THE CLAIMS

1. (currently amended) A computer-implemented method of managing a machinery monitoring system, said method comprising:

relating an asset output to at least one asset input wherein the at least one asset input includes at least one of a measured process parameter and a derived process parameter relatable to the asset output;

generating at least one rule based on the relation wherein the at least one rule defines the asset output based on the at least one asset input;

selecting at least one of live asset data, historical asset data, user-supplied asset data, and third party supplied asset data ~~to test the at least one rule~~;

~~determining an expected asset output for the selected data;~~

testing the at least one rule incrementally using the selected asset data ~~and by comparing each asset output to each respective expected asset output~~; by:

determining an expected asset output for the selected data;

comparing each asset output to each respective expected asset output;

monitoring the output of the at least one rule at each increment; and

outputting a test result.

2. (original) A method in accordance with Claim 1 further comprising bundling the at least one rule into a Rule Set that includes a Rule Set encryption code.

3. (original) A method in accordance with Claim 2 wherein bundling the at least one rule into a Rule Set comprises bundling a plurality of rules into an XML file.

4. (original) A method in accordance with Claim 2 wherein bundling the at least one rule into a Rule Set comprising bundling at least one of a rule documentation page and a Rule Set documentation page into the Rule Set.

5. (original) A method in accordance with Claim 1 further comprising:

transmitting the Rule Set to the machinery monitoring system;

decrypting the Rule Set encryption; and

importing the Rule Set into the monitoring system.

6. (original) A method in accordance with Claim 5 wherein importing the Rule Set comprises:

locating Rule Set files;

prompting a user for an encryption key; and

interpreting the Rule Set file.

7. (previously presented) A method in accordance with Claim 6 further comprising:

entering Rule Set information into an enterprise database; and

refreshing a list of Rule Sets based on the Rule Set information.

8. (previously presented) A method in accordance with Claim 5 wherein importing the Rule Set comprises:

checking an enterprise database for an existing copy of the imported Rule Set; and

selectively updating any of the existing Rule Sets if the imported Rule Set is a different version than the existing Rule Set; and

updating assets using the imported Rule Set.

9. (original) A method in accordance with Claim 5 further comprising substantially preventing importing the Rule Set into the monitoring system unless an authorized encryption key is used.

10. (original) A method in accordance with Claim 1 wherein relating an asset output to at least one input comprises relating a measurable machine asset output to at least one input.

11. (original) A method in accordance with Claim 1 wherein relating an asset output to at least one input comprises relating a measurable machine asset output to at least one input wherein the at least one input is indicative of a machine asset anomalous behavior.

12. (original) A method in accordance with Claim 1 wherein generating at least one rule comprises resolving the operands for the at least one rule.

13. (original) A method in accordance with Claim 1 wherein generating at least one rule comprises documenting the rule logic for the at least one rule.

14. (original) A method in accordance with Claim 1 wherein relating an asset output to at least one input comprises prompting the user to enter a security control password.

15. (currently amended) A computer-implemented machinery monitoring system for a plant, said system comprising:

a client system comprising a user interface;

a database for storing Rule Sets, wherein the Rule Sets include at least one rule expressed as a relational expression of a real-time data output relative to a real-time data input that includes at least one of a measured process parameter and a derived process parameter relatable to the real-time data output, wherein the relational expression is specific to a plant asset; and

a processor programmed to control said machinery monitoring system to, said processor manager programmed to:

prompt a user for a security control password;

generate a plant asset operational rule from an application expert wherein the operational rule defines the real-time data output based on the at least one real-time data input;

test said rule based on at least one of live asset data, historical asset data, user-supplied asset data, and third party supplied data, wherein the test ~~includes comparing the real-time output to an expected real-time output;~~ includes:

determining an expected asset output for the selected data;

comparing each asset output to each respective expected asset output;

display incremental results of said test; and

output a test result.

16. (original) A system in accordance with Claim 15 wherein said processor is further programmed to bundle the at least one rule into a Rule Set that includes a Rule Set encryption code.

17. (original) A system in accordance with Claim 16 wherein said processor is further programmed to bundle a plurality of rules into an XML file.

18. (original) A system in accordance with Claim 16 wherein said processor is further programmed to bundle at least one of a rule documentation page and a Rule Set documentation page into said Rule Set.

19. (original) A system in accordance with Claim 15 wherein said processor is further programmed to:

transmit said Rule Set to said at least one machinery monitoring system;

decrypt said Rule Set encryption; and

import said Rule Set into said at least one monitoring system.

20. (original) A system in accordance with Claim 19 wherein said processor is further programmed to:

locate Rule Set files;

prompt a user for an encryption key; and

interpret said Rule Set file.

21. (original) A system in accordance with Claim 20 wherein said processor is further programmed to:

enter Rule Set information into said database; and

refresh a list of Rule Sets based on said Rule Set information.

22. (previously presented) A system in accordance with Claim 19 wherein said processor is further programmed to:

check said database for an existing copy of said imported Rule Set;

selectively update any of said existing Rule Sets if said imported Rule Set is a different version than said existing Rule Set; and

update assets using said imported Rule Set.

23. (original) A system in accordance with Claim 19 wherein said processor is further programmed to substantially prevent importing said Rule Set into said at least one monitoring system unless an authorized encryption key is used.

24. (original) A system in accordance with Claim 15 wherein said processor is further programmed to relate a measurable machine asset output to at least one input.

25. (original) A system in accordance with Claim 15 wherein said processor is further programmed to relate a measurable machine asset output to at least one input that is indicative of a machine asset anomalous behavior.

26. (original) A system in accordance with Claim 15 wherein said processor is further programmed to resolve the operands for the at least one rule.

27. (original) A system in accordance with Claim 15 wherein said processor is further programmed to receive, from a user, documentation of the rule logic for said at least one rule.

28. (original)   A system in accordance with Claim 15 wherein said processor is further programmed to prompt the user to enter a security control password.

29. (currently amended)   A computer program embodied on a computer readable medium for managing a machinery monitoring system using a server system coupled to a client system and a database, said client system including a user interface, said program comprising a code segment that prompts a user for a security control password and then:

relates an asset output to at least one asset input that includes at least one of a measured process parameter and a derived process parameter relatable to the asset output;

generates a plant asset operational rule from an application expert wherein the operational rule defines an asset output based on at least one asset input;

tests said rule based on at least on of live asset data, historical asset data, user-supplied asset data, and third party supplied data wherein the testing ~~includes comparing the~~ ~~asset output to a respective expected asset output;~~ includes:

determining an expected asset output for the selected data;

comparing each asset output to each respective expected asset output;

displays incremental results of said test; and

outputs said results of said test.

30. (original)   A computer program in accordance with Claim 29 further comprising a code segment that bundles said at least one rule into a Rule Set that includes a Rule Set encryption code.

31. (original)   A computer program in accordance with Claim 30 further comprising a code segment that bundles a plurality of rules into an XML file.

32. (original)   A computer program in accordance with Claim 30 further comprising a code segment that bundles at least one of a rule documentation page and a Rule Set documentation page into said Rule Set.

33. (original) A computer program in accordance with Claim 29 further comprising a code segment that:

transmits said Rule Set to said at least one machinery monitoring system;

decrypts said Rule Set encryption; and

imports said Rule Set into said at least one monitoring system.

34. (original) A computer program in accordance with 33 further comprising a code segment that:

locates Rule Set files;

prompts a user for an encryption key; and

interprets said Rule Set file.

35. (previously presented) A computer program in accordance with Claim 34 further comprising a code segment that:

enters Rule Set information into an enterprise database; and

refreshes a list of Rule Sets based on said Rule Set information.

36. (previously presented) A computer program in accordance with Claim 33 further comprising a code segment that:

checks an enterprise database for an existing copy of said imported Rule Set;

selectively updates any of said existing Rule Sets if said imported Rule Set is a different version than said existing Rule Set; and

updates assets using said imported Rule Set.

37. (original) A computer program in accordance with Claim 33 further comprising a code segment that substantially prevents importing said Rule Set into said at least one monitoring system unless an authorized encryption key is used.

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38. (original) A computer program in accordance with Claim 29 further comprising a code segment that relates a measurable machine asset output to at least one input.

39. (original) A computer program in accordance with Claim 29 further comprising a code segment that relates a measurable machine asset output to at least one input wherein said at least one input is indicative of a machine asset anomalous behavior.

40. (original) A computer program in accordance with Claim 29 further comprising a code segment that resolves the operands for said at least one rule.

41. (original) A computer program in accordance with Claim 29 further comprising a code segment that receives, from a user, documentation of the rule logic for said at least one rule.

42. (original) A computer program in accordance with Claim 29 further comprising a code segment that prompts the user to enter a security control password.